

**Proposed Emission Limit Guidelines for Oxides of Nitrogen (NO_x) for
Distributed Generation Based Upon BACT Determinations Made by
California Districts and Other States**

Equipment Category	NO_x Control Technique and Emission Level (ppm @ 15%O₂ or g/bhp-hr)	NO_x Emission Level (lbs/MW-hr)
Turbines		
Combustion turbines (>12-50 MW)	Selective Catalytic Reduction (SCR) or SCONOX to 3 ppm	0.12
Combustion turbines (3-12 MW)	SCR to 5 ppm ¹	0.25 ¹
Combustion turbines (<3 MW)	SCR to 9 ppm ²	0.5 ²
Microturbine (<150 KW)	Combustion modifications	Power only: 0.5 Combined Heat and Power: 0.7 Combined with wind/solar: 1.0
Central station power plant equipped with Best Available Control Technology (BACT)	SCR to 2.5 ppm	0.05
Reciprocating Engines		
Reciprocating engine using fossil fuel	Natural gas rich-burn engine equipped with nonselective catalytic reduction (NSCR) and O ₂ controller or Natural gas-fueled lean-burn engine equipped with SCR to 0.07 g/bhp-hr (4 ppm (rich-burn) and 9 ppm (lean-burn)	0.2
Reciprocating engine using landfill or digester gas	Lean burn technology to 0.6 g/bhp- hr (40 ppm)	1.9

1 SCONOX can reduce NO_x to 2.5 ppm (0.13 lb/Mw-hr) and is currently being demonstrated on one turbine in this size category

2 Xonon has been demonstrated on a Kawasaki 1.5 MW turbine to 3 ppm NO_x (0.27 lb/MW-hr)

06/18/01